



Data Taking Status

2003 January 3-9

News from the Tevatron

- **Stack 'N Store through Sunday Eve Jan 12**
 - Last store terminated at 22:00
- **Shutdown from Owl Shift Monday Jan 13**
 - **Power outage from 07:00-07:30 Jan 13**
 - Experts and/or shifters must power down systems sometime from 22:00 Jan 12 and 06:30 Jan 13
 - **Shutdown schedule begins Day Shift Jan 13**
 - OPS & DAQ Shifters 24/7; CAP 08:00-20:00
 - **Supervised Access keys distributed by Shift Captains (08:00 - 20:00) or Ops Shifter**
 - Two-man rule applies!
 - **No SA keys should leave DØ!**
 - Offenders may have SA privileges suspended.



Accelerator Performance

Store	Initial Lumi	Deliv'd Lumi	Termination	Comments
2114	30.7	1437	Intentional	Quench @ F48 on abort
2116	-	-	Abort	Quench @ A11 at flattop before squeeze
2121	21.8	695	Intentional	Shot from 100 mA stack; Quench @ F48 on abort - pbar orbit too high
2123	25.5	742	Intentional	Shot from 120 mA stack; Only 11% pbar loss up ramp; end-of-store studies
2134	28.8	1362	Intentional	No changes; 11% pbar loss on ramp again
2136	30.3	1449	Intentional	No changes; 11% pbar loss on ramp again
2138	29.7	1681	Intentional	Poorer pbar lifetime @ 150 GeV; 2 hrs end-of-store studies



Other News

- **Supervised Access: 07:30-16:30 Mon Jan 6th**
 - **Followed by 5-6 Shifts of accelerator studies**
 - Results from those studies will be shown next week at AEM
- **Two Stores this week**
 - **2146: 21.50E30 - 21:03 Jan 8th - 11:54 Jan 9th**
 - Quenched at A26L
 - **2150: 27.13E30 - 19:51 Jan 9th - 20:51 Jan 9th**
 - Quenched at A34L & A38L
- **New Trigger List 10.00 began online Thu Jan 9th**
 - **First recorded run was 170247**
- **1st Shifter Tutorial: Mon Jan 13th in Far Side 13:00**
 - **Significant Event System - Geoff Savage**
 - Encourage all shifters to attend



Data Taking Statistics

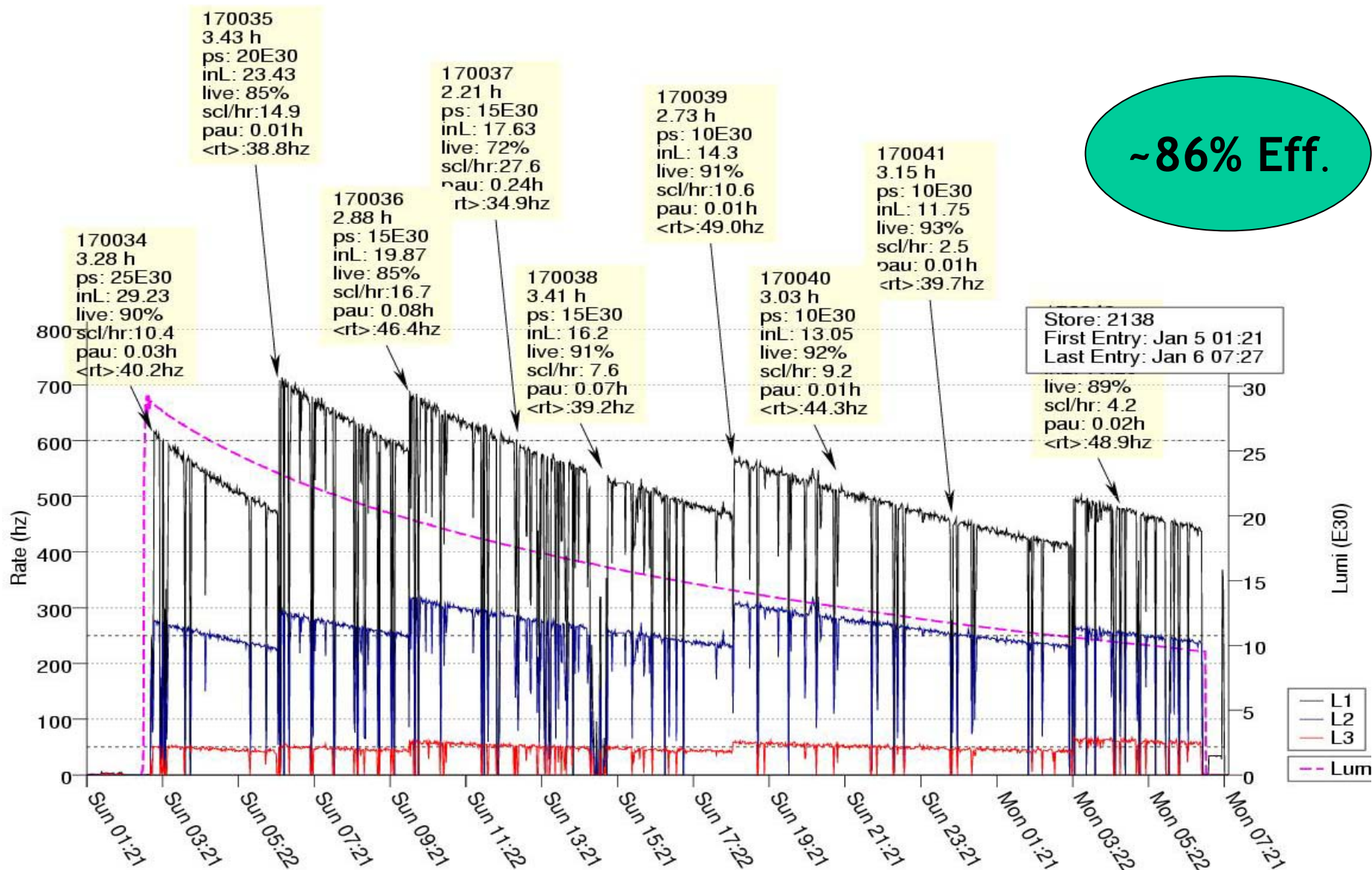
		Normalizable Luminosity (nb-1)				Hours				
Day	Date	Del	Util	Live	Rec	Store	Util	Rec	Evts (k)	Eff.
Fri	3-Jan-03	1316.42	1250.20	1066.22	994.22	21.0	19.9	19.3	2761	0.755
Sat	4-Jan-03	1365.30	1243.80	1048.93	1046.00	21.5	19.4	18.7	2898	0.766
Sun	5-Jan-03	1385.81	1378.62	1200.18	1197.12	21.7	21.6	21.1	3252	0.864
Mon	6-Jan-03	258.77	256.00	230.21	230.06	6.8	6.7	6.5	1098	0.889
Tue	7-Jan-03	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0	0.000
Wed	8-Jan-03	192.31	92.26	68.87	68.64	2.9	1.4	1.3	190	0.357
Thu	9-Jan-03	634.02	609.20	524.48	521.88	12.9	12.4	11.2	1695	0.823
		5152.6	4830.1	4138.9	4057.9	86.8	81.4	78.1	11894	0.788

- Improved stability of Muon readout crates
 - We are now running at L1/L2 rates of 10-20% higher
 - L1: 600 → 700 Hz
 - L1: 250 → 300 Hz
 - Little loss to our efficiency
 - Running at ~90% for most runs
 - Improved monitoring and automated error detection



L1/L2/L3 Rates

Store 2138 - Sun Jan 5th from 03:02





Delivered Luminosity Losses

Major Sources of Downtime: Not recording during a store

3-Jan-03	9:53	0.27	d0ol31 crashed
3-Jan-03	13:55	0.30	Jet Trigger Study
4-Jan-03	16:31	0.27	Jet Trigger Study
4-Jan-03	19:19	0.25	SMT x61 Power Cycling
8-Jan-03	21:03	1.00	Begin Store 2146; Noisy L1CAL Trigger; Rescrape Pbars
8-Jan-03	23:14	0.50	Mask Noisy MDT Wires

Other Losses

- 1.4 hrs: 16:55 Fri Jan 3rd - Online Buffer disk crashed.
 - The disk was used in the transfer of data into SAM and the event catalog. The crash occurred in the middle of a run, and about 70 nb⁻¹ of Recorded Physics Lumi was lost.
- 1.5 hrs: 02:35 Sat Jan 4th - Begin Store 2136 - "Hot" L1 CAL Trigger Towers
 - Random occurrence - problem was not seen during previous store only a few hours earlier. Took some time to diagnose, page expert & disable triggers. We took several inefficient recorded runs during this period.
- ~1.0 hr: 48 Run transitions (~1 minute/per)
- ~1.0 hr: 10 Begin or End Store transitions (~5 minutes/per)
- ~1-2 hrs: Average 1-2% FEB during physics data taking



Plans for Upcoming Week

- Final checks with beam before shutdown
 - Trigger commissioning: rates, readout, noise
 - Collect data with new trigger list
 - Collect special runs: Rate Test, PDT Code, Jet Trigger
- Complete our Preparation for Shutdown
 - Detailed plan for daily activities
 - Mechanical/Elec Operations
 - Sub-Detector & Trigger Systems
- Please make sure Web Calendar has on-call expert for periods with no scheduled shifter
- Please provide name & contact info for person(s) taking care of system shutdowns and recoveries due to power outages on Jan 13th and 17th
 - This list will be given to the relevant Shift Captains
- There will be an Operations Meeting next week - Jan 17th